Date: Thu, 16 Jun 94 03:31:46 PDT

From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>

Errors-To: Info-Hams-Errors@UCSD.Edu

Reply-To: Info-Hams@UCSD.Edu

Precedence: Bulk

Subject: Info-Hams Digest V94 #670

To: Info-Hams

Info-Hams Digest Thu, 16 Jun 94 Volume 94 : Issue 670

Today's Topics:

"Renewal" reusable alkaline batteries
anyone figure lithium 1.5 v cells?
Beware of RADIOKIT kits (IMHO)
Ford Explorer and TS-50 Noise

IMMEDIATE LICENSING? Bad implementation. Good idea.
IPS Daily Report - 15 June 94
Nickel Hydride Cells
PRO-2030 mdification?

Railroad track as an antenna?

You know its time to retire from the hobby when.... (3 msgs)

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu> Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu> Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available (by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text herein consists of personal comments and does not represent the official policies or positions of any party. Your mileage may vary. So there.

Date: 15 Jun 94 22:10:00 -0400

From: ihnp4.ucsd.edu!library.ucla.edu!europa.eng.gtefsd.com!MathWorks.Com!

noc.near.net!eisner!cornelius@network.ucsd.edu
Subject: "Renewal" reusable alkaline batteries

To: info-hams@ucsd.edu

I am interested in information about Rayovac "Renewal" reusable alkaline batteries.

They look like a good deal, since the batteries themselves are similar in cost to ordinary alkalines, and unlike other rechargables have the full capacity of an alkaline battery , at least for the first few times the battery is reused.

Does anyone have experience with them or understand how they work? Is it possible to charge them yourselves, or are the specs for doing so being kept quiet by the manufacturer?

George Cornelius, WBORRB cornelius@eisner.decus.org cornelius@mayo.edu

Date: 16 Jun 94 04:25:49 GMT

From: ihnp4.ucsd.edu!usc!nic-nac.CSU.net!csulb.edu!paris.ics.uci.edu!ucivax!

gateway@network.ucsd.edu

Subject: anyone figure lithium 1.5 v cells?

To: info-hams@ucsd.edu

I have found my deal on Lithium AA 1.5 volt cells. As someone correctly pointed out to me once, 'lithium cells provide 3 volts, not 1.5', but, there they are! Anyone know just how it is done? A little dropping resistor :-) ?

Clark **WA3JPG**

Date: Thu, 16 Jun 1994 00:39:35 GMT

From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!newsserver.jvnc.net! raffles.technet.sg!ntuix!ntuvax.ntu.ac.sg!asirene@network.ucsd.edu

Subject: Beware of RADIOKIT kits (IMHO)

To: info-hams@ucsd.edu

In article <1994Jun12.122846.1@ccsua.ctstateu.edu>, white@ccsua.ctstateu.edu writes:

>

- > I purchased 2 kits from RADIOKIT (New Hampshire) recently (the QRP-20
- > by K1BQT and the 7MHz Optimized by W7EL).
- > First, the 7MHz kit was missing SEVEN parts (5 caps, 1 pot, 1 resistor). After
- > 2 attempts to get these components replaced over 2 weeks, I received
- > ONLY the pot. No explanation as to where the rest of the parts are.
- > Now for the UGLY one..... the QRP-20 kit is a mess.....missing parts,
- > wrong-sized standoffs for critical transistor heat sink installation,
- > directions furnished are for the QRP 15 (!) with several "mod sheets",
- > undrilled PCB connections, PCB layout errors, gross assumptions in
- > directions, changes in kit that were not forwarded to customers, etc.
- > and etc. And gee, all this fun for \$100. "Easy to buildcomes with
- > detailed manual and parts diagram [for a different RIG].... easy to

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> wind coils with _full_pictorials_ [NOT] .... " etc. etc.
> This is reckless merchandising at best. I'm no rocket scientist,
I second all of the above, not to mention awful performance. Birdies all across
the band. Only redeeming feature is its small size (QRP-20).
> but this is NOT what it was portrayed to be.
>
Date: Wed, 15 Jun 1994 16:24:08 GMT
From: ihnp4.ucsd.edu!usc!cs.utexas.edu!csc.ti.com!tilde.csc.ti.com!
skopen.dseg.ti.com!usenet@network.ucsd.edu
Subject: Ford Explorer and TS-50 Noise
To: info-hams@ucsd.edu
In article <77161926134n12@131.168.114.12>
Earl=Morse%EMC=Srvc%Eng=Hou@bangate.compaq.com writes:
>
>
>>I recently acquired a Kenwood TS-50 for mobile HF and installed it in my
>>1992 Ford Explorer. With the key in the Accessory position (all electronics
>>fired up but engine not running), the noise on HF is S9 or better across
>>all bands, but most accute on 17 and 20m. Anyone out there in netland
>>solved this problem already???
>>
>Not much of a description here Craig, but if you haven't tried running
>the power cables directly to the battery and putting a ferrite core on
>them I would do that first. Be careful of running the power cables over
>any control modules in wire harnesses where it could pickup noise
>from the control modules. Moving the rig if you discover it is near a control
>module will be beneficial also.
>Good Luck.
>Earl Morse
>KZ8E
>kz8e@bangate.compaq.com
A friend of mine just got a TS-50 this weekend and is having the identical
```

A friend of mine just got a TS-50 this weekend and is having the identical problem in his Ford (don't know type). He has confirmed that is noise coming from the fuel pump. He pulled the fuse on the fuel pump and all noise went away. He says that Ford is aware of this problem and he heard that a special filter was available. But as of yesterday afternoon, the local dealerships said that they would "have to look into it" and

played dump. I hope that helps narrow it down for you.

Date: Thu, 16 Jun 1994 06:11:55 GMT

From: ihnp4.ucsd.edu!library.ucla.edu!csulb.edu!csus.edu!netcom.com!

wa2ise@network.ucsd.edu

Subject: IMMEDIATE LICENSING? Bad implementation. Good idea.

To: info-hams@ucsd.edu

In article <2tmvvu\$1ql@cville-srv.wam.umd.edu> ham@wam.umd.edu (Scott Richard Rosenfeld) writes:

>Immediate licensing was an EXCELLENT idea. I believe that nearly EVERY >ham on the air would have agreed with this. The VE's giving the exam >should have been allowed to call the FCC computer, use a modem, and >enter the data directly into the FCC database, at which point a call->sign would have been spit out. Ideally, THIS is the way it should be.

How about the FCC giving the VEC's a list of new callsigns to be given to successful examinees on the spot, and the VEC's just fill out a form with the new call holder's name and address? Maybe some VEC's might let people pick and choose a little from the list. "Can I have that one, 'ISE'?" Similar security as that with the present paperwork. Only thing is that no callsign should get "lost" (ie, never issued because someone VEC lost that particular form with it printed on.). Shouldn't be any major problem.

Date: Wed, 15 Jun 1994 23:30:23 GMT

From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!EU.net!sunic!trane.uninett.no!

ifi.uio.no!wabbit.cc.uow.edu.au!metro!ipso!rwc@network.ucsd.edu

Subject: IPS Daily Report - 15 June 94

To: info-hams@ucsd.edu

SUBJ: IPS DAILY SOLAR AND GEOPHYSICAL REPORT ISSUED AT 15/2330Z JUNE 1994 BY IPS RADIO AND SPACE SERVICES FROM THE REGIONAL WARNING CENTRE (RWC), SYDNEY. SUMMARY FOR 15 JUNE AND FORECAST UP TO 18 JUNE

No IPS Disturbance Warning is current

1A. SOLAR SUMMARY Activity: very low

Flares: none.

Observed 10.7 cm flux/Equivalent Sunspot Number : 088/032

1B. SOLAR FORECAST

Activity Low Low Very low Fadeouts None expected None expected None expected

Forecast 10.7 cm flux/Equivalent Sunspot Number: 090/034

1C. SOLAR COMMENT

None.

2A. MAGNETIC SUMMARY

Geomagnetic field at Learmonth: quiet to unsettled

Estimated Indices : A K Observed A Index 14 June

Learmonth 06 3222 1121

Fredericksburg 15 15 Planetary 15 14

Observed Kp for 14 June: 3333 3333

2B. MAGNETIC FORECAST

DATE Ap CONDITIONS

16 Jun 15 Quiet to unsettled.

17 Jun 15 Quiet to unsettled, with possible brief active periods. 18 Jun 15 Quiet to unsettled, with possible brief active periods.

2C. MAGNETIC COMMENT

Active periods may be observed during June 17-18 due to dissappearing solar filament.

3A. GLOBAL HF PROPAGATION SUMMARY

LATITUDE BAND

DATE LOW MIDDLE HIGH
15 Jun normal normal normal

PCA Event : None.

3B. GLOBAL HF PROPAGATION FORECAST

LATITUDE BAND

DATE LOW MIDDLE HIGH

16	Jun	normal	normal	normal
17	Jun	normal	normal-fair	fair
18	Jun	normal	normal-fair	fair

3C. GLOBAL HF PROPAGATION COMMENT

Degraded HF comms conditions may be experienced June 17-18.

4A. AUSTRALIAN REGION IONOSPHERIC SUMMARY

MUFs at Sydney were 15 to 20% above predicted monthly values

Observed T index for 15 June: 51

Predicted Monthly T Index for June is 30.

4B. AUSTRALIAN REGION IONOSPHERIC FORECAST

DATE	T-index	MUFs

16 Jun 40 Near predicted monthly values to 15% enhanced.

17 Jun 30 Near predicted monthly values. 18 Jun 30 Near predicted monthly values.

4C. AUSTRALIAN REGION COMMENT

Spread F observed at times during local night. Degraded HF comm may be experienced during June 17-18.

Recorded Message tel: +61 2 4148330 |AUSTRALIA

Date: 16 Jun 94 00:09:13 GMT

From: dog.ee.lbl.gov!agate!kabuki.EECS.Berkeley.EDU!kennish@ucbvax.berkeley.edu

Subject: Nickel Hydride Cells

To: info-hams@ucsd.edu

In article <wsw.30.0011E69D@cellware.de>,

Stefan Wimmer <wsw@cellware.de> wrote:

>In article <1994Jun13.083636.5538@ee.surrey.ac.uk> M.Willis@ee.surrey.ac.uk (Mike

Willis) writes:

>>From: M.Willis@ee.surrey.ac.uk (Mike Willis)

>>Subject: Nickel Hydride Cells

```
>>Date: Mon, 13 Jun 94 08:36:36 GMT
>
>
>>I have just bought 6 Nickel Hydryde AA cells for use with my Icom handheld....
>>
>> ((deleted stuff))
>>
>>Any help is appreciated.
>>Mike
>Hi Mike,
>I also thought about bying NiMHs for my HT (FT530), but then I heared, that
>they self discharge very quickly. So I looked for the best AA sized NiCd cells
>one can get and found Panasonic4s 900mAh cells. The cost is about 2/3 the
>NiMH4s and they work UFB! The only trick with them is that they don4t have the
>usual knob at the + pole, so I had to modify the contacts of the battery case.
>73s de Stefan (DD6FM)
```

Ahh yes, a caveat to those thinking the same thing. The Panasonic 900 mAh cells use foam electrode technology. In short, this means that the internal resistance of these cells is substantially higher than we are accustomed to for NiCds.

What this means: During transmit, when you are drawing an amp, the voltage supplied by the pack will be less than you expect due to ohmic losses.

I have foam cells, and yes, they have great capacity, but they do suffer from voltage drop during transmit, which means that your TX power is lower than it should be.

Do an experiment if you have both the foam cells and an original NiCd pack in good condition. During high power transmit, note the DC voltage using the handy-dandy built in voltmeter and note the voltage drop between Rx and Tx. I think you will find that the drop is double with the foam cells -- at least that is what I find with mine. Note that part of the additional drop could be due to the fact that the FBA12 uses spring contacts while the factory pack uses welded terminals.

If this is a problem, Sanyo makes the KR-800AAE, 800 mAh sintered plate cells, which have 12 mOhm internal impedance. (I have no connection to Sanyo.)

Glad to hear that this worked for you though. I have been using NiCds in the FBA12 for quite some time. At \$50 for a factory pack, and \$5.00 for a set of 6 cheapo NiCds, you can't lose.

-Ken

Date: 16 Jun 94 02:06:39 GMT From: news-mail-gateway@ucsd.edu Subject: PRO-2030 mdification?

To: info-hams@ucsd.edu

Can anyone tell me how to, or where I can find information about scanner modificaions

for the Radio Shack PRO-2030 scanner radio ?

Thanks
Shashi Kumar
kumar@cisco.com

Date: 16 Jun 94 06:34:29 GMT

From: dog.ee.lbl.gov!agate!spool.mu.edu!torn!spartan.ac.BrockU.CA!

s9898198@ucbvax.berkeley.edu

Subject: Railroad track as an antenna?

To: info-hams@ucsd.edu

I have heard a legend that a college radio station (either at MIT, Tufts, or Swarthmore) welded antenna to railroad tracks, and peeved the FCC by broadcasting nationwide. Is this true? If anyone knows, please email me (or post here) If you do know, could you please direct me to some documentation regarding this legend if you can.

This is very important! Thanks in advance.

James R. Storm |
Accounting Student | This message was brought to you by s9898198@sandcastle.cosc.brocku.ca | the letters M, Q, and the number 6 (905) 227-9571 voice |

```
Date: Wed, 15 Jun 1994 22:32:03 GMT
From: ihnp4.ucsd.edu!swrinde!emory!cherry.atlanta.com!nanovx!kd4dts!
jcw@network.ucsd.edu
Subject: You know its time to retire from the hobby when....
To: info-hams@ucsd.edu
md@pstc3.pstc.brown.edu (Michael P. Deignan) writes:
To get your ham buddies attention (who lives across the street), you yell
'CQ! CQ! CQ!' from your driveway...
your wife starts talking to you while your on the phone, and you tell the
person on the other end you're getting intermod...
you've named your brand new German Shepherd puppy 'Radio Flyer' to combine
two of your hobbies... (this is true, this is my dog's name...)
>... you're talking on the phone with a ham buddy, and you end the
>conversation and hang up the phone with a 'KD1HZ clear'.
>MD
>--
>-- Michael P. Deignan
>-- Amalgamated Baby Seal Poachers Union, Local 101
>-- "Get 'The Club'... Endorsed by Baby Seal poachers everywhere..."
John C. Wren (kd4dts)
                          | "The UNIX operating system has a command, NICE,
jcw@kd4dts.atl.ga.us
                         | which allows a user to voluntarily reduce the
..!emory!wa4mei!kd4dts!jcw | priority of his process, in order to be nice to
_____
Date: 16 Jun 1994 02:13:15 GMT
From: ihnp4.ucsd.edu!agate!howland.reston.ans.net!math.ohio-state.edu!
hobbes.physics.uiowa.edu!news.uiowa.edu!icaen!drenze@network.ucsd.edu
Subject: You know its time to retire from the hobby when....
To: info-hams@ucsd.edu
...you're talking to somebody face-to-face in a busy place and you say, "Let's
QSY my office," and they know exactly what you mean!
         Doug Renze, NOYVW * drenze@isca.uiowa.edu * NOYVW @ WOIUQ.ia.usa.na
                               DRenze@aol.com
_____
```

Date: 16 Jun 1994 05:09:59 GMT

From: ihnp4.ucsd.edu!swrinde!cs.utexas.edu!chpc.utexas.edu!news.utdallas.edu!

corpgate!bnrgate!bmerha64.bnr.ca!news%bmerha64@network.ucsd.edu Subject: You know its time to retire from the hobby when....

To: info-hams@ucsd.edu

u find urself typing in cw shorthand to fellow wrkers on internal email... (I hve found myself doing this too many times)...

u tell people over the phone "I'm at my work QTH"...

Fred M. Davis VA3FD | These opinions are mine and are not Nepean, ON. | necessarily those of the company

Date: Thu, 16 Jun 1994 06:00:51 GMT

From: ihnp4.ucsd.edu!library.ucla.edu!csulb.edu!csus.edu!netcom.com!

wa2ise@network.ucsd.edu
To: info-hams@ucsd.edu

References <940615103721@emerald.nist.gov>, <2tn7jq\$bsf@tekadm1.cse.tek.com>, <2tnd3r\$33g@oak.oakland.edu>

Subject : Re: You know its time to retire from the hobby when....

When the kids get names related to radio. I'm Robert F. Casey, that's RF, or radio frequency, or go further, radio frequency choke. :-)

Date: Wed, 15 Jun 1994 14:29:24 -0400

From: ftpbox!mothost!lmpsbbs!NewsWatcher!user@uunet.uu.net

To: info-hams@ucsd.edu

References <2td3t2\$6gd@ccnet.ccnet.com>, <Cr9Kyq.EwG@news.Hawaii.Edu>,
<CrBrC4.Fn9@news.Hawaii.Edu>

Subject: Re: End of `440 in SoCal' thread (was: VHF Maritime Outrage!!)

In article <CrBrC4.Fn9@news.Hawaii.Edu>, jherman@uhunix.uhcc.Hawaii.Edu
(Jeffrey Herman) wrote:

- > In article <Cr9Kyq.EwG@news.Hawaii.Edu> jherman@uhunix3.uhcc.Hawaii.Edu (Jeffrey
 Herman) writes:
- > >In article <2td3t2\$6gd@ccnet.ccnet.com> sohn@ccnet.com (Jim Sohn) writes:

> >>

```
> >>Don't know what your source is, but the US amateurs in ITU region 2 have
> >>access to 275 MHz in the 5.8 GHz band alone, and another 750 MHz in the 10
>>>and 24 GHz bands. These allocations are valuable - just ask any business
>>or government agency that operates their own network on similar
> >>frequencies.
>
>
> To add to what Jim pointed out here's everything above 2M:
> ***************************
> 1.25 METERS:
> Novice Class licensees:
> 222.10-223.91 CW, Phone, Image, MCW, RTTY/Data
> Technician, General, Advanced, Extra licensees:
> 222.00-225.00 CW, Phone, Image, MCW, RTTY/Data
Amateur SECONDARY, ITU Regions 2 & 3
Allocated Amateur co-primary, shared with fixed and mobile services, on a
non-interference basis to govt radiolocation
> 70 CENTIMETERS:
> Technician, General, Advanced, Extra licensees:
> 420.0-450.0 CW, Phone, Image, MCW, RTTY/Data
Amateur SECONDARY, 420-430 MHz USA
Amateur SECONDARY, 430-440 MHz ITU Regions 2 & 3
Amateur SECONDARY, non-interfering basis to govt radiolocation
Amateur SECONDARY, non-interfering basis to non-govt radiolocation
> 33 CENTIMETERS:
> Technician, General, Advanced, Extra licensees:
> 902.0-928.0 CW, Phone, Image, MCW, RTTY/Data
Amateur SECONDARY, ITU Regions 2 & 3
Amateur SECONDARY, non-interfering basis to govt radiolocation
Amateur SECONDARY, non-protected basis, shared among ISM, vehicle
monitoring, and other US Govt stations
Amateur SECONDARY, non-interfering basis to govt radiolocation
*** As of about two weeks ago, (not yet in the rules) the FCC allocated
PRIMARY
*** status to a new radio-based data information service in the 902-928
band.
*** Licenses were granted in four metro areas. Amateurs and other
secondary
*** users were reminded that they must cease operation if interference is
*** caused to these new systems.
> 23 CENTIMETERS:
```

```
> Novice Class licensees:
> 1270-1295 CW, phone, Image, MCW, RTTY/Data -
           Maximum power 5 watts PEP
> Technician, General, Advanced, Extra licensees:
> 1240-1300 CW, Phone, Image, MCW, RTTY/Data
Amateur SECONDARY, ITU Regions 2 & 3
Amateur SECONDARY, non-interfering basis to non-govt radiolocation
> HIGHER FREQUENCIES:
> Technician, General, Advanced, Extra licensees:
> All modes allowed by the Amateur Service are permitted on
> the following frequencies:
> 2300-2310 MHz (13cm)
Amateur SECONDARY, ITU Regions 2 & 3
Amateur CO-SECONDARY, protected basis from US govt fixed & mobile
Amateur SECONDARY, non-interfering basis to non-govt radiolocation
Amateur SECONDARY, non-interfering basis to foreign radiolocation
> 2390-2450 MHz (13 cm)
Amateur SECONDARY, ITU Regions 2 & 3
Amateur SECONDARY, non-protected basis shared with ISM devices 2400-2450
Amateur SECONDARY, non-interfering basis to US govt radiolocation
Amateur SECONDARY, non-interfering basis to non-govt radiolocation
Amateur SECONDARY, non-interfering basis to foreign fixed, mobile, &
radiolocation
> 3300-3500 MHz (9 cm)
Amateur SECONDARY, ITU Regions 2 & 3
Amateur SECONDARY, non-interfering basis to US govt radiolocation
Amateur CO-SECONDARY, non-interfering basis to non-govt radiolocation
Amateur SECONDARY, non-interfering basis to foreign radiolocation
3300-3400
Amateur SECONDARY, non-interfering basis to foreign fixed & satellite
3400-3500
> 5650-5925 MHz (5 cm)
Amateur CO-SECONDARY, ALL ITU Regions with deep space research 5650-5725
GHz
Amateur SECONDARY, ALL ITU Regions 5725-5850 GHz
Amateur CO-SECONDARY ITU Region 2 shared with radiolocation service
Amateur SECONDARY, non-interfering basis to foreign fixed & satellite
5725-5850
Amateur SECONDARY, non-interfering basis to US govt radiolocation
Amateur SECONDARY, non-interfering basis to non-govt radiolocation
Amateur SECONDARY, non-protected basis shared with ISM devices on 5800 GHz
```

Amateur SECONDARY, non-interfering basis to non-govt fixed-satellite 5850-5925

> 10.0-10.5 GHz (3 cm)

Amateur SECONDARY, non-interfering basis to US govt radiolocation Amateur SECONDARY, non-interfering basis to non-govt radiolocation Amateur SECONDARY, non-interfering basis to foreign radiolocation

> 24.0-24.25 GHz

Amateur SECONDARY, non-interfering basis to US govt radiolocation Amateur SECONDARY, non-interfering basis to foreign radiolocation Amateur SECONDARY, non-interfering basis to govt radiolocation

> 48.0-50.0 GHz

My book shows the band at 47.0 to 47.2 GHz, but that was 1991. At least then there were NO restrictions in this window and amateur appears to be primary.

> 71.0-76.0 GHz

My book shows the band at 76-81 GHz, but that was 1991 Amateur SECONDARY, non-interfering basis to US govt radiolocation $\,$ 76-81 GHz

Amateur SECONDARY, non-interfering basis to non-govt radiolocation 76-81 GHz

Amateur SECONDARY, non-interfering basis to US govt radiolocation 144-149 GHz

Amateur SECONDARY, non-interfering basis to non-govt radiolocation 144-149

Amateur SECONDARY, non-interfering basis to foreign radiolocation 144-149 GHz

> 165.0-170.0 GHz

My book shows the band at 144-149, but that was 1991

> 240.0-250.0 GHz

Amateur SECONDARY, non-interfering basis to US govt radiolocation 241-248 GHz

Amateur SECONDARY, non-interfering basis to non-govt radiolocation 241-248 GHz

> All above 300 GHz

300-302, 324-326, 345-347, 363-365, 379-381 GHz

Non-interference basis to Space Research service or Earth Exploration service

> ************************

```
> Wow! No need to whine about 440 when we've got all THIS available.
> Jeff NH6IL
```

Jeff, you'd better read the footnotes on those allocations (97.303 b thru q). I've added most, but I'm sure I missed or messed up a few in the ultra-fine print of Part 97. I'm still using the 1991 edition, since the GPO unfortunately has not yet shipped our orders (placed in November '93) for several copies of the 1993 printing.

These are NOT "Amateur Radio Bands" in the same sense as the lower frequencies. In general they are NOT allocated amateur worldwide or as primary use. The only amateur allocation at 222-225 MHz only happened because the hams made so much noise about the piracy of 220-222 for commercial interests, who now have lost interest in that segment completely.

The FCC just started granting PRIMARY licenses in the 902-928 MHz band to data and information services, so you can kiss it goodbye before 2001 rolls around.

- -

End of Info-Hams Digest V94 #670 ***********